

**Commonwealth of Kentucky**  
**Division for Air Quality**  
***PERMIT STATEMENT OF BASIS***

Title V draft permit No. V-00-013  
Eagle Industries, Inc.  
Bowling Green, Kentucky  
June 9, 2000  
REVIEWER: Sajjad Quabili  
Plant I.D. # 105-3960-0129 / 21-227-00096  
Application Log # G563 and G564

**SOURCE DESCRIPTION:**

Eagle Industries manufactures wood furniture at their Bowling Green Plant. The company operates three wood manufacturing finishing lines in this plant namely: Hope Street Finishing Line, Hope Street Curio Finishing Line and DC Finishing Line. Each finishing line consists of spray booths, sanding sealers and drying ovens. Stain, sanding sealer and lacquer topcoat are sprayed on the furniture in the spraying operation. The plant also contains a wood cutting department consisted miscellaneous routers, drilling and sawing machines. Each wood cutting machine is provided with a dust collector.

**COMMENTS:**

The Hope Street and the Main Street Plant (DC Finishing Line) were operated under two separate permits for their wood manufacturing operations. A Title V permit (V-97-042) was issued to the Hope Street Plant on 1/13/98. Later, on 7/2/98 the Hope Street Title V permit was revised to a Synthetic Minor / Title V permit [V-97-042(Rev.)] under a Synthetic Minor Revision. The curio operation was included in this permit for Hope Street Plant. A Conditional Major / Synthetic Minor (F-97-015) permit was issued to the Main Street Plant on 7/2/98. Eagle Industries applied for a Synthetic Minor permit / Title V permit on 6/28/99 for the construction / operation of their Main Street Plant. The DAQ found that these two sources are actually adjacent sources. Later, a consolidated application for the source was submitted to the DAQ for a construction / operation permit. A synthetic minor / Title V permit will be issued to the source for their three finishing lines in one permit.

**40 CFR 63 Subpart JJ**, National Emission Standards for Wood Furniture Manufacturing Operations is applicable to all three finishing lines of Eagle Industries due to VHAP contents of finishing material or solvent. **401 KAR 59:010**, New Process Operations is also applicable to those finishing lines.

The VOC emissions from the paint application are based on the VOC content of the paint. Part of the VOC from paint sprayed in the booths will be flashed off at the spray booth and the remainder will be released through curing ovens. For simplicity of the calculation emission through paint booths was assumed to be 100%. No control equipment is employed to control VOC emissions for the spray booths. No control equipment is employed either for the drying oven to control PM and VOC emissions.

Exhaust filters are used to control particulate emission at each spray booth. The controlled PM emission is less than allowable limit. The transfer efficiency for the surface of the furniture is assumed 50%. The efficiency of the exhaust filters is claimed by the facility to be 95%. Particulate emission through the drying oven is insignificant. No control equipment is used for the ovens.

The plant is required to keep the daily record all VOC, HAP, VHAP coating materials usage at the source and to summarize those records at the end of each month. This data is required to calculate actual emissions of VOC, HAP and VHAP at the source.

#### **EMISSION AND OPERATING CAPS DESCRIPTION:**

40 CFR 63.802, **EMISSION LIMITS FOR FINISH MATERIALS:** Volatile Hazardous Air Pollutant (VHAP) emissions shall not exceed the limits presented in Table 3 of 40 CFR 63 Subpart JJ for each of the finishing line for the Eagle Industries. Emission limit for Volatile Organic Compound (VOC) for each of the finishing is as follows:

##### **Line 1- Hope Street Finishing Line:**

This finishing line held a synthetic minor Title V source by limiting emissions less than 249 tons per year VOC. The finishing line is a Title V source for potential to emit combined HAPs over 25 tons / year listed in 401 KAR 63:060, List of hazardous air pollutants, petitions process, lesser quantity designations, and source category list and for VOCs more than 100 tons per year. The source is potentially synthetic minor for VOC emissions. The source has opted for a cap at 249 ton per year VOC emissions for this finishing line.

##### **Line 2-Curio Finishing Line:**

This finishing line was an emission point in the permit for Hope Street Plant. This finishing line will be operated as a separate operation with an emission cap of less than 40 tons per year. The addition of less than 39 tons per year to the permit for Hope Street Plant is allowable 401 KAR 51:017 for the source holding a Synthetic minor / Title V permit.

##### **Line3- DC Finishing Line:**

This finishing line held a Conditional Major permit for wood manufacturing operation. The source applied to the DAQ to expand their operation for this finishing line. This facility will be a Synthetic Minor by limiting VOC emissions less than 249 tons per year. The facility will be a Title V source for potential to emit combined HAPs over 25 tons/year listed in 401 KAR 63:060, List of hazardous air pollutants, petitions process, lesser quantity designations, and source category list and for VOCs more than 100 tons per year. The source is potentially synthetic minor for VOC emissions. The source has opted for a cap at 249 ton per year VOC emissions for this finishing line.

**PERIODIC MONITORING:** Compliance with annual emissions cap will be ensured by the monitoring, record keeping and reporting specified in the permit.

The VOC emissions will be limited as follow:

249 tons per year for Line 1

39 tons per year for Line 2

249 tons per year for Line 3

The division is requiring the source to keep daily records of usage of paintings, coatings, sealers and solvents at each of the assembly line and to summarize those records at the end of each month. The source shall also keep records of the monthly and twelve months rolling total for VOC, HAP and VHAP emissions at each of the finishing line each month. The keeping of daily records for particulate matter is not required as PM emissions are far less than the allowable limit of 2.58 pounds per hour for each affected facility.

Eagle Industry is required to report to the Bowling Green Regional Office semiannually the VOC, HAP and VHAP usage and emissions at the source. Violation of the permit limits for VOC emissions may require PSD review.

**OPERATIONAL FLEXIBILITY:** Operational flexibility is allowed under the permit by not placing throughput or emissions limits on individual machines, but by placing all machines under an assembly line wide emissions cap (See Periodic Monitoring above).

**CREDIBLE EVIDENCE:**

This permit contains provisions which require that specific test methods, monitoring or record keeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.